

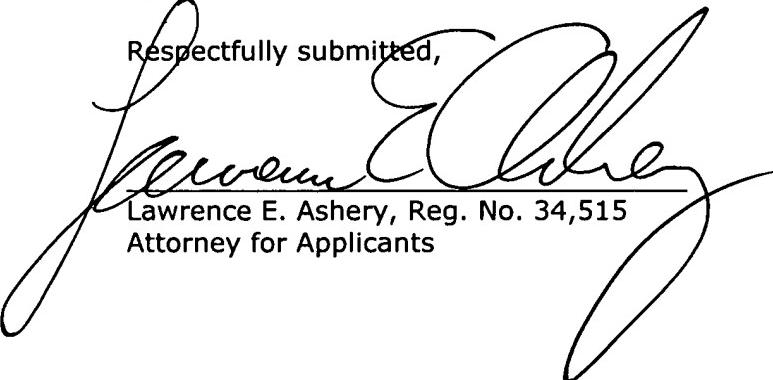
**Amendment to the Abstract:**

The Abstract has been amended. A revised Abstract is attached.

**ABSTRACT**

A pupil detection device includes an image data extraction unit (220) for determining a plurality of concentric circles on an eye image respectively as integrating circles; and extracting the image data of the eye image positioned on the circumferences of the integrating circles; a pointer unit (260) for indicating center coordinates of the integrating circles; a contour integrating unit (230) for integrating the image data extracted by the image data extraction unit (220) along the respective circumferences of the integrating circles; a pupil radius detection unit (250) for detecting that the integrated value of the integrating circle has changed stepwise with respect to the radius of the integrating circle; a pupil position detection unit (280) for detecting that the center coordinates of the integrating circle as pupil position coordinates when the integrated value of the integrating circle is changed stepwise with respect to the radius of the integrating circle, and the image data extraction unit (220) extracts a plurality of image data simultaneously.

Respectfully submitted,

  
Lawrence E. Ashery, Reg. No. 34,515  
Attorney for Applicants

LEA/fp

Attachment: Abstract

Dated: November 2, 2005

P.O. Box 980  
Valley Forge, PA 19482-0980  
(610) 407-0700

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KATHLEEN LIBBY

ABSTRACT

A pupil detection device includes an image data extraction unit for determining a plurality of concentric circles on an eye image respectively as integrating circles; a contour integrating unit for integrating the image data extracted by the image data extraction unit along the respective circumferences of the integrating circles; a pupil radius detection unit for detecting that the integrated value of the integrating circle has changed stepwise; a pupil position detection unit for detecting that the center coordinates of the integrating circle as pupil position coordinates when the integrated value of the integrating circle is changed stepwise with respect to the radius of the integrating circle, and the image data extraction unit extracts a plurality of image data simultaneously.